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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application of:	David B. Riffer
Appeal No.:	
Serial No.:	10/680,840
Filing Date:	October 7, 2003
Confirmation No.:	5411
Title:	PLASTIC CLOSURE WITH COMPRESSION MOLDED SEALING/BARRIER LINER
Attorney Docket:	17155-03
Group Art Unit:	1732
Examiner:	M. J. Daniels

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

On June 29, 2006
(Date)

Diana Castillo
(Name of Person Signing Paper)

Diana Castillo
(Signature of Person Signing Paper)

APPEAL BRIEF

Applicant has appealed the rejection of claims 1-55. Notice of Appeal with appropriate fee was filed on May 9, 2006, this Appeal Brief therefore being due on July 9, 2006.

Please charge the additional appeal fee, together with any other charges or fees associated with this submission, to Account No. 15-0875 (Owens-Illinois).

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1. Real Party In Interest

This application is assigned to Owens-Illinois Closure Inc., which is a wholly owned subsidiary of OI Plastic Products FTS Inc., which is a wholly owned subsidiary of Owens-Illinois Group, Inc., which is a wholly owned subsidiary of Owens-Illinois, Inc., who is the real party in interest in this appeal.

2. Related Appeals and Interferences

None.

3. Status of Claims

All claims 1-55 remaining in the application have been finally rejected, which rejection is the subject of the present appeal. No claims have been allowed.

4. Status of Amendments After Final Rejection

No Amendments after Final Rejection have been filed.

5. Summary of the Claimed Subject Matter

The claims on appeal are directed to a method of making a plastic closure (independent claims 1 and 24), and to a method of making a liner for a plastic closure (independent claim 32).

Independent claim 1 recites a method of making a plastic closure that comprises the steps of providing a plastic cap 22 (specification page 2, line 20 and page 11, lines 18-19) that includes a base 30 and a peripheral skirt 32 (page 11, line 21 to page 12, line 3).

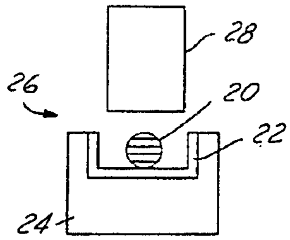

FIG. 2

(Numerals are employed to facilitate reference to the drawings and not as limitations to the claims.) A mold charge 20 is placed within the cap interior on the base (page 11, lines 18-19), and includes layers of matrix polymer material alternating with layers of barrier polymer material to resist transmission of gases, water vapor and flavorants (page 6, lines 9-10), and compatibilizer material comprising a thermoplastic resin for tying the matrix polymer material to the barrier polymer material by reactive bonds or non-reactive adhesion mechanisms (page 4, lines 15-16). The mold charge is compression molded in situ within the cap interior against the base (page 3, lines 2-3; page 11, lines 21-22) to form a liner 20a on the base having layers of barrier polymer material alternating with layers of matrix polymer material (page 2, line 21 to page 3, line 2). Exemplary liner geometries are illustrated in FIGS. 3 and 6-7, and the liner geometry is not the subject of the present disclosure. FIGS. 5C-5G are photomicrographs that illustrate the layered configuration in the liner.

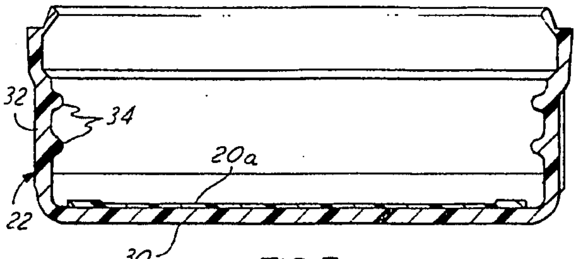

FIG.3

Independent claim 24 recites a method of making a plastic closure that comprises the steps of extruding plastic mold charge material that consists essentially of: (1) continuous layers of matrix polymer material alternating with continuous layers of barrier polymer material to resist transmission of gases, water vapor or flavorants, totaling at least nine alternating layers of matrix and barrier polymer materials (page 6, lines 9-10; page 8, lines 8-9), and (2) a compatibilizer material comprising thermoplastic resin for tying the layers of matrix polymer material to the layers of barrier polymer material by reactive bonds or non-reactive adhesion mechanisms (page 4, lines 15-16). The compatibilizer material is disposed in the matrix polymer material layers or in the barrier polymer material layers or in separate layers between the matrix and barrier polymer material layers (page 6, lines 13-15; page 8, lines 15-19). The extruded mold charge is severed and placed in a plastic cap that includes a base and a peripheral skirt defining a cap interior (page 11, lines 18-19). The mold charge is compression molded in situ within the cap against the base (page 3, lines 2-3; page 11, lines 21-22) to form a liner on the base having continuous layers of barrier polymer material alternating with continuous layers of matrix polymer material (page 2, line 21 to page 3, line 2).

Independent claim 32 recites a method of making a liner for a plastic closure (page 6, lines 8-9), which includes the steps of extruding a pellet that consists essentially of a multiplicity of alternating layers of matrix polymer material and barrier polymer material that resists gas transmission (page 6, lines 9-10), and compression molding the pellet to form a liner disk in which the alternating material layers are oriented generally parallel to the disk (page 6, lines 11-12).

6. Grounds of Rejection to be Reviewed on Appeal

A number of application claims have been rejected on the basis of obviousness-type double patenting over Hock 6,696,123. A Terminal Disclaimer is filed with this Appeal Brief to obviate this double patenting rejection, and this basis for rejection will not be discussed further.

All claims 1-55 have been rejected over the prior art under 35 USC 103. Independent claims 1, 24 and 32 will be separately argued, and dependent claims 2-23, 25-31 and 33-55 will be considered to stand or fall with the independent claims for purposes of this appeal only.

Independent claims 1 and 32 are rejected over the combination of Mori 4,312,824, Mehra 5,700,412 and Hundt 3,147,874. Independent claim 24 is rejected over Mori, Mehra, Hundt and Schrenk 5,380,479.

7. Argument

Rejection of Claim 1 over Mori 4,312,824, Mehra 5,700,412 and Hundt 3,147,874

The Mori patent is cited for disclosure of compression molding a mold charge to form a liner within a closure shell. Thus, the Mori reference is at most cumulative to the background discussion at page 1, lines 16-21 of the application text that compression molding a liner in situ within a closure shell is conventional technology in and of itself. The specific materials discussed at Mori column 6, lines 11-31 are not relevant to the subject matter of claim 1 (or to claim 24 or 32).

The Mehra patent discloses a process for making a laminar article in which a polyolefin, a barrier polymer and a compatibilizer are blended and heated to a temperature above the melting point of the highest-melting component of the blend to form a heterogenous melt, and the heterogenous melt is then "stretched" in at least one direction (column 2, lines 8-17; column 6, lines 8-14). The "stretching" operation may be accomplished by squeezing between rollers, pressing between platens, extruding between die lips or blow molding (column 8, lines 4-8). The resulting product comprises a polyolefin matrix, the compatibilizer, and the barrier resin in the form of discrete - i.e., non-continuous- "regions, domains, particles or platelets, these words being used interchangeably" (column 2, lines 36-47). The "stretching" operation disclosed in Mehra is a film-type process in which constant forces are applied over a relatively long time duration to achieve a controlled shear rate in the stretching direction. It will be noted in particular that the forces applied to the material are generally parallel to the direction of material flow in the various techniques disclosed in Mehra.

There is nothing in Mehra to suggest that the discrete particle or platelet-forming action involved in such a "stretching" operation would or could take place in a compression molding operation, and thus there is no basis for combining this reference with Mori except in a hindsight effort to meet the claims of the present application. Compression molding a liner in situ within a closure shell generates highly variable and highly non-linear shear rates within the liner material. As disclosed in Mori, as well as in the various patents referenced in the application text, in-situ liner compression molding is accomplished by severing a charge of extruded material, placing the charge within a preformed closure shell, and then bringing a male die element into contact with the charge material. See the discussion relative to FIG. 2 of the application text. The charge material immediately in contact with the shell experiences little or no material flow, while other portions of the charge material experience radical material flow over a very short time duration toward the periphery of the liner being molded. In direct contrast to what is disclosed in Mehra, the forces applied to the material and the material flow are non-continuous, non-linear and non-constant, and the forces are generally perpendicular rather than parallel to the direction of material flow. Thus, it would have been anything but "obvious" to persons of ordinary skill in the art that the disclosure of the Mehra reference had or has any meaning or bearing on the art of compression molding liners in situ, as disclosed in Mori or otherwise.

It also is noted that the "heterogenous blend" of discrete particles in the product disclosed in Mehra is not even remotely related to providing a mold charge that includes "layers of matrix polymer material alternating with layers of barrier polymer material" as recited in claim 1. Nor does the Mehra patent have anything to do with a liner having layers of barrier polymer material alternating with layers of matrix polymer material as recited in claim 1.

It remains unclear what the Hundt reference has to do with the present application as claimed - i.e., a method of making a plastic closure. The Hundt patent discloses a closure in which disks of paper, PVC and polyolefin are captured within a crown closure. There is no disclosure or suggestion in Hundt that these disks of diverse materials could or should be formed by compression molding a mold charge or the like.

In short, there is absolutely no disclosure or suggestion in Mori or Mehra (or Hundt) that would lead a person of ordinary skill in the art to the subject matter of appealed claim 1. It is axiomatic that, to support a rejection on the basis of alleged obviousness, it is necessary that the references teach, suggest or provide incentive to combine elements from the various references to obtain the subject matter claimed. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ 2d 1434 (Fed. Cir. 1988); *In re Geiger*, 815 F.2d 686 (Fed. Cir. 1987); *Ex parte Clapp*, 227 USPQ 972 (POBA 1985). This is particularly true, of course, where the elements of the references would be required to coact with each other in a manner different from the way they coact in the reference disclosures, or where the key or distinguishing element of the claims is completely lacking in the references.

> [I]n order to meet the terms of the claims on appeal, the elements of the [prior art] device would have to be arranged in a manner different from that disclosed by [the art]. The elements of the reference would also be required to coact differently from the way they coact in the arrangement disclosed by the reference. The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide motivation or reason for the worker in the art, without the benefit if applicant's specification, to make the necessary changes in the reference device.

Ex parte Chicago Rawhide Mfg. Co, 223 USPQ 351, 353 (POBA 1984). See also *Fromsom v. Advanced Offset Plate, Inc.*, 755 F.2d 1549, 225 USPQ 26 (CAFC 1985); *In re Sernaker*, 702 F.2d 989, 217 USPQ 1 (CAFC 1983) and *Ex parte Stauber*, 208 USPQ 945, 946 (POBA 1980).

> Simply stated:
>
> It is wrong to use the [application] as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of non-obviousness in a court of law.

Orthopaedic Equipment Co., Inc. v. U.S., 702 F.2d 1005, 217 USPQ 193, 199 (Fed. Cir. 1983). See also *In re Fritch*, supra ("It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art." 23 U.S.P.Q.2d at 1784); *In re Pavlecka*, 138 U.S.P.Q. 152 (CCPA 1953); *Ex parte Garrett*, 132 U.S.P.Q. 514 (POBA 1961).

Rejection of Claim 24 over Mori 4,312,824, Mehra 5,700,412, Hundt 3,147,874 and Schrenk 5,380,479

The Mori, Mehra and Hundt references have been discussed in detail above with respect to claim 1. It is noted again, with particular reference to independent claim 24, that provision of "continuous layers" of matrix and barrier polymer material is the antithesis of what is disclosed in Mehra, in which the barrier resin in the final product is in the form of "regions, domains, particles or platelets" (column 2, lines 36-47). The process disclosed in Mehra simply does not start with and does not form continuous layers of barrier polymer material alternating with continuous layers of matrix polymer material, as recited at claim 24, lines 3-4 and 17-18.

The Schrenk reference discloses a technique for multiplying the layers of an extruded layered material. Indeed, the Schrenk patent is related to the two patents referenced at page 8, line 13 of the present application text relative to layer generation device 16 and layer multiplication device 18 in FIG. 1 of the present application. One potential use mentioned in Schrenk is fabrication of plastic containers as multilayer structures incorporating layers of PET and EVOH (column 15, line 38+). A specific example is mentioned at column 21, line 40+ involving multilayer cans having layers of HDPE and EVOH. There is nothing in Schrenk even remotely suggestive of compression molding barrier liners from multilayer charge pellets. Furthermore, the Schrenk reference has nothing at all to do with the Mehra reference, in which both the starting material and the final product are in the form of heterogenous blends involving discrete particles or platelets, rather than alternating continuous layers of barrier and matrix polymer materials as recited in claim 24. Thus, it is submitted that the Schrenk reference adds nothing to Mori, Mehra and Hundt insofar as independent claim 24 is concerned.

Rejection of Claim 32 over Mori 4,312,824, Mehra 5,700,412 and Hundt 3,147,874

Independent claim 32 recites extruding a pellet that "consists essentially of a multiplicity of alternating layers of matrix polymer material and barrier polymer material," and compression molding the pellet to form a liner disk in which the alternating layers are oriented generally parallel to the disk. The Mori patent discloses that the mass or pellet 4 (FIG. 1) of material to be compression molded into the liner can be obtained from an extruder (column 3, line 8), but does not disclose or suggest extruding a pellet that "consists essentially of" a multiplicity of alternating layers. Mehra discloses provision of a pellet by melting a barrier polymer in a first extruder, melting a compatibilizer in a second extruder, combining the extruder outputs to produce a coextruded strand, cutting the strand into pellets, and heterogeneously blending such pellets with particles of polyolefin matrix material. This blend is then stretched to produce the heterogenous film product with discrete particles or platelets (column 2, lines 1-24). There is no disclosure or suggestion in this reference of extruding a pellet that consists essentially of a multiplicity of alternating layers of matrix and barrier polymer materials, or compression molding the pellet to form a liner disk in which the alternating layers are oriented generally parallel to the disk.

As noted above, the Hundt patent merely teaches a crown closure that includes disks of paper, PVC and polyolefin.

It therefore is believed and respectfully submitted that the rejection of claims 1-55 should be reversed, and that these claims should be allowed.

Please charge any fees associated with this submission to Account No. 15-0875 (Owens-Illinois).

Respectfully submitted,

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8. Appendix of Appealed Claims

1.

A method of making a plastic closure that comprises the steps of:

(a) providing a plastic cap that includes a base and a peripheral skirt defining a cap interior,

(b) placing within said cap interior, on said base, a mold charge that includes layers of matrix polymer material alternating with layers of barrier polymer material to resist transmission of gases, water vapor or flavorants, and compatibilizer material comprising a thermoplastic resin for tying the matrix polymer material to the barrier polymer material by reactive bonds or non-reactive adhesion mechanisms, and

© compression molding said mold charge in situ within said cap interior against said base to form a liner on said base having layers of barrier polymer material alternating with layers of matrix polymer material.

2.

The method set forth in claim 1 wherein said step (b) comprises orienting said mold charge so that said layers are at a predetermined orientation with respect to said base.

3.

The method set forth in claim 1 wherein said step (b) is such that said layers in said mold charge are at random orientation with respect to said base.

4.

The method set forth in claim 1 further comprising, prior to said step (b):

(d) extruding mold charge material having said layers therein, and

(e) severing said mold charge from the material extruded in said step (d).

5.

The method set forth in claim 1 wherein said compatibilizer material is disposed in said matrix polymer material layers, or in said barrier polymer material layers, or in separate layers between said matrix polymer material and barrier polymer material layers.

6.

The method set forth in claim 1 wherein said mold charge consists essentially of said matrix polymer material, said barrier polymer material and said compatibilizer material.

7.

The method set forth in claim 6 wherein said barrier polymer material includes platelets of smectite clay.

8.

The method set forth in claim 1 wherein said matrix polymer material is selected from the group consisting of thermoplastic elastomers, soft olefin polymers, and mixtures thereof.

9.

The method set forth in claim 8 wherein said matrix polymer material is a thermoplastic elastomer having a Shore A hardness of 45 to 95 and a flexural modulus of 30,000 to 100,000 psi.

10.

The method set forth in claim 8 wherein said matrix polymer material comprises at least one thermoplastic elastomer selected from the group consisting of styrene block copolymers and elastomeric alloys.

11.

The method set forth in claim 10 wherein said matrix polymer material is an olefin polymer having a Shore A hardness less than 100.

12.

The method set forth in claim 11 wherein said olefin polymer is selected from the group consisting of metallocene-made polyethylene, ethylene-propylene rubbers, ethylene copolymers, and mixtures thereof.

13.

The method set forth in claim 1 wherein said barrier polymer material is selected from the group consisting of EVOH, crystalline, semi-crystalline and amorphous nylons, acrylonitrile copolymers, blends of EVOH and amorphous nylon, nanocomposites of EVOH or nylon and clay, blends of EVOH and an ionomer, acrylonitrile, cyclic olefin copolymers, and blends thereof.

14.

The method set forth in claim 1 wherein said compatibilizer material is selected from the group consisting of maleic anhydride grafted polymers, ethylene vinyl acetate grafted polymers, ethylene methyl acrylate, ionomers and blends thereof.

15.

The method set forth in claim 1 wherein said barrier polymer material comprises EVOH or nylon, and said matrix polymer material comprises EVA.

16.

The method set forth in claim 1 wherein said matrix polymer material consists essentially of a blend of one or more matrix polymers and said compatibilizer material.

17.

The method set forth in claim 1 wherein said mold charge consists of at least nine alternating layers of said matrix polymer and barrier polymer materials.

18.

The method set forth in claim 17 wherein said liner consists of at least thirty-three alternating layers of said matrix polymer and barrier polymer materials.

19.

The method set forth in claim 18 wherein said liner consists of at least one hundred twenty-nine alternating layers of said matrix polymer and barrier polymer materials.

20.

The method set forth in claim 1 wherein said liner has a Shore A hardness of not more than 94.

21.

The method set forth in claim 1 wherein mold charge contains lubricant selected from the group consisting of fatty acid amides, fatty acid esters, microcrystalline waxes, polyethylene glycols, primary amides, secondary amides, secondary-bis amides, and blends thereof.

22.

The method set forth in claim 21 wherein said lubricant is in the amount of about 0.5% to 1.5% by weight of said mold charge.

23.

The method set forth in 22 wherein said lubricant is in the amount of about 0.5% by weight of said mold charge.

24.

A method of making a plastic closure that comprises the steps of:

(a) extruding plastic mold charge material that consists essentially of: (1) continuous layers of matrix polymer material alternating with continuous layers of barrier polymer material to resist transmission of gases, water vapor or flavorants, totaling at least nine alternating layers of matrix and barrier polymer materials, and (2) compatibilizer material comprising thermoplastic resin for tying the layers of matrix polymer material to the layers of barrier polymer material by reactive bonds or non-reactive adhesion mechanisms, said compatibilizer material being disposed in said matrix polymer material layers, or in said barrier polymer material layers, or in separate layers between the matrix and barrier polymer material layers,

(b) severing a mold charge pellet from the mold charge material extruded in said step (a),

© providing a plastic cap that includes a base and a peripheral skirt defining a cap interior,

(d) placing said mold charge pellet within said cap, and then

(e) compression molding said mold charge pellet in situ within said cap against said base to form a liner on said base having continuous layers of barrier polymer material alternating with continuous layers of matrix polymer material.

25.

The method set forth in claim 24 wherein said matrix polymer material is selected from the group consisting of thermoplastic elastomers, soft olefin polymers, and mixtures thereof.

26.

The method set forth in claim 25 wherein said matrix polymer material comprises at least one thermoplastic elastomer selected from the group consisting of styrene block copolymers and elastomeric alloys.

27.

The method set forth in claim 26 wherein said olefin polymer is selected from the group consisting of metallocene-made polyethylene, ethylene-propylene rubbers, ethylene copolymers, and mixtures thereof.

28.

The method set forth in claim 24 wherein said barrier polymer material is selected from the group consisting of EVOH, crystalline, semi-crystalline and amorphous nylons, acrylonitrile copolymers, blends of EVOH and amorphous nylon, nanocomposites of EVOH or nylon and clay, blends of EVOH and an ionomer, acrylonitrile, cyclic olefin copolymers, and blends thereof.

29.

The method set forth in claim 24 wherein said barrier polymer material includes platelets of smectite clay.

30.

The method set forth in claim 24 wherein said compatibilizer material is selected from the group consisting of maleic anhydride grafted polymers, ethylene vinyl acetate grafted polymers, ethylene methyl acrylate, ionomers and blends thereof.

31.

The method set forth in claim 24 wherein said mold charge material includes a lubricant selected from the group consisting of fatty acid amides, fatty acid esters, microcrystalline waxes, polyethylene glycols, primary amides, secondary amides, secondary-bis amides, and blends thereof.

32.

A method of making a liner for a plastic closure that comprises the steps of:

(a) extruding a pellet that consists essentially of a multiplicity of alternating layers of matrix polymer material and barrier polymer material that resists gas transmission, and

(b) compression molding said pellet to form a liner disk in which the alternating material layers are oriented generally parallel to the disk.

33.

The method set forth in claim 32 wherein said matrix polymer material consists essentially of a blend of one or more matrix polymers and a compatibilizer material.

34.

The method set forth in claim 33 wherein the blend of matrix polymer and compatibilizer materials differs in melt viscosity from said barrier polymer material by no more than a factor of five.

35.

The method set forth in claim 32 wherein said step (a) includes the step of extruding a compatibilizer material with said matrix and barrier polymer materials.

36.

The method set forth in claim 35 wherein said compatibilizer material is blended with one or both of said matrix and barrier polymer materials prior to extrusion.

37.

The method set forth in claim 35 wherein said matrix polymer material, said barrier polymer material and said compatibilizer material are extruded as separate layers.

38.

The method set forth in claim 37 wherein layers of barrier polymer material and matrix polymer material alternate with each other, and wherein a layer of said compatibilizer material is disposed between each layer of barrier polymer material and each layer of matrix polymer material.

39.

The method set forth in claim 35 wherein said barrier polymer material is in the range of about 6% to 35% by weight in said pellet, said compatibilizer material is in the range of about 6% to 20% by weight, the balance consisting of said matrix polymer material.

40.

The method set forth in claim 32 wherein said matrix polymer material is selected from the group consisting of thermoplastic elastomers, soft olefin polymers, and mixtures thereof.

41.

The method set forth in claim 40 wherein said matrix polymer material is a thermoplastic elastomer having a Shore A hardness of 45 to 95 and a flexural modulus of 30,000 to 100,000 psi.

42.

The method set forth in claim 40 wherein said matrix polymer material comprises at least one thermoplastic elastomer selected from the group consisting of styrene block copolymers and elastomeric alloys.

43.

The method set forth in claim 40 wherein said matrix polymer material is an olefin polymer having a Shore A hardness less than 100.

44.

The method set forth in claim 43 wherein said olefin polymer is selected from the group consisting of metallocene polyethylene, ethylene-propylene rubbers, ethylene copolymers, and mixtures thereof.

45.

The method set forth in claim 32 wherein said barrier polymer material is selected from the group consisting of EVOH, crystalline, semi-crystalline and amorphous nylons, acrylonitrile copolymers, blends of EVOH and amorphous nylon, nanocomposites of EVOH or nylon with clay, blends of EVOH and an ionomer, acrylonitrile, cyclic olefin copolymers, and blends thereof.

46.

The method set forth in claim 32 wherein said pellet further includes a compatibilizer material comprising thermoplastic resin for tying the matrix polymer material to the barrier polymer material by reactive bonds or non-reactive adhesion mechanisms, with said compatibilizer material being selected from the group consisting of maleic anhydride grafted polymers, ethylene vinyl acetate grafted polymers, EVA, ethylene methyl acrylate, ionomers and blends thereof.

47.

The method set forth in claim 32 wherein said liner consists of at least nine alternating layers of said matrix and barrier polymer materials.

48.

The method set forth in claim 47 wherein said liner consists of at least thirty-three alternating layers of matrix and barrier polymer materials.

49.

The method set forth in claim 48 wherein said liner consists of at least one hundred twenty-nine alternating layers of matrix and barrier polymer materials.

50.

The method set forth in claim 32 that comprises the additional step of:

© providing a closure cap having a base and a peripheral skirt defining a cap interior and means on said skirt for securing the cap to a container, and

(d) securing said liner disk to the interior of said base.

51.

The method set forth in claim 50 wherein said steps (b) and (d) are carried out simultaneously by compression molding said pellet in situ on the interior of said base.

52.

The method set forth in claim 32 wherein said liner has a Shore A hardness of not greater than 94.

53.

The method set forth in claim 52 wherein said liner contains a lubricant selected from the group consisting of fatty acid amides, fatty acid esters, microcrystalline waxes, polyethylene glycols, primary amides, secondary amides, secondary-bis amides, and blends thereof.

54.

The method set forth in claim 53 wherein said lubricant is in the amount of about 0.5% to 1.5% by weight of said liner.

55.

The method set forth in claim 54 wherein said lubricant is in the amount of about 0.5% by weight of said liner.